



January 2008

Forms for DVD Format Verification of DVD-R Drive for General & for DL

Form 1T to 52T Version 2.8

Notice:

- *These Forms will be revised on occasion for improvement or Version-up of the related Test Specification.*
- *The latest Forms shall be used to fill up the necessary information for application to Verification Lab, according to the related Test Specification.*
- *You can fill up the shaded space in every Form.*
- *"Adobe® Acrobat®" will be necessary for making your own files.*

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Preliminary Information for DVD Format Verification

| | | |
|---------------------------------|---|--|
| Application No. (Lab use) | : | |
| Application date (mm. dd, yyyy) | : | |
| Lab receipt date (mm. dd, yyyy) | : | |
| Lab name | : | |

DVD-R Drive for General and/or for DL described blow is for DVD Format Verification of the First Production Model.

- | | |
|---|---|
| <p>12cm DVD-R Drive for General (12cm SL Drive)</p> <p><input type="checkbox"/> 1x-speed DVD-R Drive for General</p> <p><input type="checkbox"/> 4x/1x-speed DVD-R Drive for General</p> <p><input type="checkbox"/> 6x/1x-speed DVD-R Drive for General</p> <p><input type="checkbox"/> 8x/1x-speed DVD-R Drive for General</p> <p><input type="checkbox"/> 12x/1x-speed DVD-R Drive for General</p> <p><input type="checkbox"/> 16x/1x-speed DVD-R Drive for General</p> <p>8cm DVD-R Drive for General (8cm SL Drive)</p> <p><input type="checkbox"/> 1x-speed DVD-R Drive for General</p> | <p>12cm DVD-R Drive for DL (12cm DL Drive)</p> <p><input type="checkbox"/> 2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 4x/2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 6x/2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 8x/2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 10x/2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 12x/2x-speed DVD-R Drive for DL</p> <p>8cm DVD-R Drive for DL (8cm DL Drive)</p> <p><input type="checkbox"/> 2x-speed DVD-R Drive for DL</p> <p><input type="checkbox"/> 4x/2x-speed DVD-R Drive for DL</p> |
|---|---|

| Product name | Model number | Notes |
|--------------|--------------|-------|
| | | |
| Remarks: | | |

DVD-R Drive for General and/or for DL described above will be applied for DVD Format Verification by the following applicant.

| | |
|------------------------|--|
| Name of applicant | |
| Title of applicant | |
| Company & Factory name | |
| Factory address | |
| Phone number | |
| Fax number | |
| E-mail | |

Applicant's Signature:

Test Information of DVD Format Verification

DVD Format Verification Lab record (Verification Lab use only)

- Name of Verification Lab : _____
- Name of inspector : _____
- Application date : _____
- Date of test completed : _____
- Verification number : _____

Information of applicant

- Applicant's name : _____
- Company name : _____
- Company address : _____
- Phone number : _____
- Fax number : _____

DVD-R Drive for General and/or for DL details

- Brand/Trade name : _____
- Model number : _____
- Disc number : _____

- Supporting Disc Single Layer : ☐ 12cm disc ☐ 8cm disc
- Dual Layer : ☐ 12cm disc ☐ 8cm disc

- Recordable speed Single Layer : ☐ 1x ☐ 4x ☐ 6x ☐ 8x ☐ 12x ☐ 16x
- Dual Layer : ☐ 2x ☐ 4x ☐ 6x ☐ 8x ☐ 10x ☐ 12x

- Declaration of recording speed for the test in the section

6.2.1 (4x SL) R=40mm; ☐ 4x ☐ 2x ----- R=25mm; ☐ 4x ☐ 2x -----

7.2.1 (6x SL) R=40mm; ☐ 6x ☐ 4x ☐ 2x R=25mm; ☐ 6x ☐ 4x ☐ 2x

8.2.1 (8x SL) R=40mm; ☐ 8x ☐ 6x ☐ 4x

9.2.1 (12x SL) R=40mm; ☐ 12x ☐ 8x ☐ 6x

12.2.1 (4x DL) R=55mm; ☐ 4x ☐ 2x ----- R=40mm; ☐ 4x ☐ 2x ----- R=25mm; ☐ 4x ☐ 2x -----

13.2.1 (6x DL) R=55mm; ☐ 6x ☐ 4x ☐ 2x R=40mm; ☐ 6x ☐ 4x ☐ 2x R=25mm; ☐ 6x ☐ 4x ☐ 2x

14.2.1 (8x DL) R=55mm; ☐ 8x ☐ 6x ☐ 4x R=40mm; ☐ 8x ☐ 6x ☐ 4x

15.2.1 (10x DL) R=55mm; ☐ 10x ☐ 8x ☐ 6x R=40mm; ☐ 10x ☐ 8x ☐ 6x

18.2.1 (8cm/4x DL) R=25mm; ☐ 4x ☐ 2x -----

- Type of product : ☐ Drive Solely ☐ Drive with PC ☐ Others (_____)

- Supporting OS : ☐ Windows Vista ☐ Windows XP ☐ Windows 2000
- ☐ Windows Me ☐ MAC
- ☐ Unix ☐ PC98 ☐ Others (_____)

- Interface : ☐ SCSI-2 ☐ ATAPI ☐ Others (_____)

- Power Supply : _____

- Applicant already had the verification approval of DVD-R Drive for General : ☐ Yes ☐ No

Check list of Forms for Submission

| Forms | Title of Forms | Applicant | Lab | Forms | Title of Forms | Applicant | Lab |
|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|
| 1T | Preliminary Information | <input type="checkbox"/> | <input type="checkbox"/> | 12cm/2x-speed DL | | | |
| 2T | Test Information | <input type="checkbox"/> | <input type="checkbox"/> | 26T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | 27T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| | | | | 28T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 12cm/1x-speed SL | | | | 29T | Reading Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 3T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 12cm/4x-speed DL | | | |
| 4T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 30T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 5T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 31T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 6T | Reading Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 32T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 8cm/1x-speed SL | | | | 12cm/6x-speed DL | | | |
| 7T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 33T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 8T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 34T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 9T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 35T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 10T | Reading Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 12cm/8x-speed DL | | | |
| 12cm/4x-speed SL | | | | 36T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 11T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 37T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 12T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 38T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 13T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 12cm/10x-speed DL | | | |
| 12cm/6x-speed SL | | | | 39T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 14T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 40T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 15T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 41T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 16T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 12cm/12x-speed DL | | | |
| 12cm/8x-speed SL | | | | 42T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 17T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 43T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 18T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 44T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 19T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 8cm/2x-speed DL | | | |
| 12cm/12x-speed SL | | | | 45T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 20T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 46T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 21T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 47T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |
| 22T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 48T | Reading Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 12cm/16x-speed SL | | | | 8cm/4x-speed DL | | | |
| 23T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 49T | Recording Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 24T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> | 50T | Linking Characteristics | <input type="checkbox"/> | <input type="checkbox"/> |
| 25T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> | 51T | Lead-in and RMA | <input type="checkbox"/> | <input type="checkbox"/> |

- Applicant checks the columns that the data Forms are required according to the nomination of "Supporting Disc (SL and/or DL, and 12cm or 8cm)" and "Recordable speed".
- Lab confirms the chart based on the nomination whether the applicant correctly selects the Forms.

Test results of Recording characteristics for 12cm/1x-speed SL Type 1

(Test Tools: GRBTD-001 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.15 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS) *3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 1x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-001 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/1x-speed Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/1x-speed SL

(Test Tools: GRBTD-001 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-36 | | | | |
| | BP 55-60 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.3.2.2.2 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 1 st field of Write Strategy code (Hex) | BP 64-67 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power (Hex) | BP 68-71 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time Stamp (Hex) | BP 72-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address (Hex) | BP 80-83 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 84-107 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of Write Strategy code (Hex) | BP 108-113 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| DSV (Hex) | BP 114-115 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of Reading characteristics for 12cm SL

(Test Tool: GRSTD-101)

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Test results of Recording characteristics for 8cm/1x-speed SL Type 1

(Test Tools: R-HM110 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | Specification | Measurement | | Judgment (Lab use) | |
|---------------------------|---|---------------|----------------|-----|-----------------------|--|
| | | | Applicant | Lab | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 38 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 38 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.15 min. | | | |
| | | R = 38 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 38 mm | | | | |
| O | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS) *3 | R = 25 mm | 0.10 max. | | | |
| | | R = 38 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 38 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab.* | Items** | | Specification | Measurement | | Judgment (Lab use) |
|------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 38 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 38 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 1x-speed Linking characteristic for 8cm SL

(Test Tools: R-HM110 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Test results of Information data in Lead-in and RMA for 8cm/1x-speed SL

(Test Tools: R-HM110 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-36 | | | | |
| | BP 55-60 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.3.2.2.2 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 1 st field of Write Strategy code (Hex) | BP 64-67 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power (Hex) | BP 68-71 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time Stamp (Hex) | BP 72-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address (Hex) | BP 80-83 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 84-107 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of Write Strategy code (Hex) | BP 108-113 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| DSV (Hex) | BP 114-115 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of Reading characteristics for 8cm SL

(Test Tool: R-HM110-A)

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Test results of Recording characteristics for 12cm/4x-speed SL

(Test Tools: GRBTD-021 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.15 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 4x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-021 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test shall be done in the user area where the Drive can keep performing 4x-speed recording.

This test is only for 12cm 4x/1x-speed Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/4x-speed SL

(Test Tools: GRBTD-021 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

3.2.1 RMD Field0 (refer to Optional Specifications)

| Item *4 | | Applicant | Lab | | Judgment |
|--------------------------------------|-----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 79-80 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 81-84 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 87-92 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 95-100 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

*4: Refer to Optional Specifications 4x-speed DVD-R Rev. 1.0.

3.2.2 RMD Field1 (check only #1 area) (refer to Optional Specifications)

| Item *1 | | Applicant | Lab | | Judgment |
|---|------------|-----------|-----------------------------|-----------------------------|----------|
| Time stamp for 4x-speed recording (Hex) | BP 576-583 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 1 st field of 4x-speed Write Strategy code (Hex) | BP 584-587 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of 4x-speed Write Strategy code (Hex) | BP 588-593 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 3 rd field of 4x-speed Write Strategy code (Hex) | BP 594-599 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power for 4x-speed recording (Hex) | BP 600-603 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 4x-speed recording (Hex) | BP 604-607 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information for 4x-speed recording (Hex) | BP 608-631 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Strategy Type for 4x-speed recording (Hex) | BP 632 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 4x-speed DVD-R Rev. 1.0.

Test results of Recording characteristics for 12cm/6x-speed SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.15 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 6x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test shall be done in the user area where the Drive can keep performing 6x-speed recording.

Test results of Information data in Lead-in and RMA for 12cm/6x-speed SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.2.1 RMD Field1 (check only #1 area) (refer to Optional Specifications)

| Item *1 | | Applicant | Lab | | Judgment |
|---|-----------------|-----------|-----------------------------|-----------------------------|----------|
| Time stamp for 6x-speed recording (Hex) | BP 1024-1031 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 1 st field of 6x-speed Write Strategy code (Hex) | BP 1032-1035 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of 6x-speed Write Strategy code (Hex) | BP 1036-1041 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 3 rd field of 6x-speed Write Strategy code (Hex) | BP 1042-1047 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power for 6x-speed recording (Hex) | BP 1048-1051 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 6x-speed recording (Hex) | BP 1052-1055 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information for 6x-speed recording (Hex) | BP 1056-1079 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 6x-speed DVD-R Rev. 2.0.

Test results of Recording characteristics for 12cm/8x-speed SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| ○ | Jitter | R = 40 mm | < 8.0 % | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| ○ | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | | |
| | | R = 55 mm | | | | |
| ○ | I ₃ /I ₁₄ | R = 40 mm | 0.15 min. | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| ○ | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | | |
| | | R = 55 mm | | | | |
| ○ | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | | |
| | | R = 55 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| ○ | Signal asymmetry | R = 40 mm | - 0.05 to 0.15 | | | |
| | | R = 55 mm | | | | |
| ○ | Track crossing signal | R = 40 mm | 0.10 min. | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | Specification | Measurement | | Judgment (Lab use) | |
|--------------------|---|---------------|-------------|-----|-----------------------|--|
| | | | Applicant | Lab | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| ○ | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40 mm | 0.5 to 1.1 | | | |
| | | R = 55 mm | | | | |
| ○ | Asymmetry | R = 40 mm | 0.2 max. | | | |
| | | R = 55 mm | | | | |
| ○ | Tangential push-pull signal | R = 40 mm | 0.9 max. | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| ○ | CNR of the Wobble signal (RBW=1kHz) | R = 40 mm | > 31 dB | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| ○ | PI errors in any consecutive 8 ECC blocks | R = 40 mm | ≤ 280 | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 8x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test shall be done in the user area where the Drive can keep performing 8x-speed recording.

This test is only for 12cm/8x/1x-speed Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/8x-speed SL

(Test Tools: GRBTD-031 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.2.1 RMD Field1 (check only #1 area) (refer to Optional Specifications)

| Item *1 | | Applicant | Lab | | Judgment |
|---|-----------------|-----------|-----------------------------|-----------------------------|----------|
| Time stamp for 8x-speed recording (Hex) | BP 1088-1095 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 1 st field of 8x-speed Write Strategy code (Hex) | BP 1096-1099 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of 8x-speed Write Strategy code (Hex) | BP 1100-1105 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 3 rd field of 8x-speed Write Strategy code (Hex) | BP 1106-1111 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power for 8x-speed recording (Hex) | BP 1112-1115 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 8x-speed recording (Hex) | BP 1116-1119 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information for 8x-speed recording (Hex) | BP 1120-1143 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 8x-speed DVD-R Rev. 3.0.

Test results of Recording characteristics for 12cm/12x-speed SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| ○ | Jitter | R = 40 mm | < 8.0 % | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| ○ | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | | |
| | | R = 55 mm | | | | |
| ○ | I ₃ /I ₁₄ | R = 40 mm | 0.15 min. | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| ○ | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | | |
| | | R = 55 mm | | | | |
| ○ | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | | |
| | | R = 55 mm | | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| ○ | Signal asymmetry | R = 40 mm | - 0.05 to 0.15 | | | |
| | | R = 55 mm | | | | |
| ○ | Track crossing signal | R = 40 mm | 0.10 min. | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | Specification | Measurement | | Judgment (Lab use) | |
|--------------------|---|---------------|-------------|-----|-----------------------|--|
| | | | Applicant | Lab | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| ○ | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40 mm | 0.5 to 1.1 | | | |
| | | R = 55 mm | | | | |
| ○ | Asymmetry | R = 40 mm | 0.2 max. | | | |
| | | R = 55 mm | | | | |
| ○ | Tangential push-pull signal | R = 40 mm | 0.9 max. | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| ○ | CNR of the Wobble signal (RBW=1kHz) | R = 40 mm | > 31 dB | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| ○ | PI errors in any consecutive 8 ECC blocks | R = 40 mm | ≤ 280 | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test result of 12x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test shall be done in the user area where the Drive can keep performing 12x-speed recording.

Test results of Information data in Lead-in and RMA for 12cm/12x-speed SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.2.1 RMD Field1 (check only #1 area) (refer to Optional Specifications)

| Item *1 | | Applicant | Lab | | Judgment |
|--|-----------------|-----------|-----------------------------|-----------------------------|----------|
| Time stamp for 12x-speed recording (Hex) | BP 1536-1543 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 1 st field of 12x-speed Write Strategy code (Hex) | BP 1544-1547 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of 12x-speed Write Strategy code (Hex) | BP 1548-1553 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 3 rd field of 12x-speed Write Strategy code (Hex) | BP 1554-1559 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power for 12x-speed recording (Hex) | BP 1560-1563 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 12x-speed recording (Hex) | BP 1564-1567 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information for 12x-speed recording (Hex) | BP 1568-1591 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 12x-speed DVD-R Rev. 5.0.

Test results of Recording characteristics for 12cm/16x-speed SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 55 mm | < 8.0 % | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 55 mm | 0.60 min. | | | |
| O | I ₃ /I ₁₄ | R = 55 mm | 0.15 min. | | | |
| | (I _{14H} max. – I _{14H} min.)/I _{14H} max. | | | | | |
| O | Within one revolution (PUH with PBS) | R = 55 mm | 0.15 max. | | | |
| O | Within one disc (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 55 mm | 0.10 max. | | | |
| | Within one disc (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 55 mm | – 0.05 to 0.15 | | | |
| O | Track crossing signal | R = 55 mm | 0.10 min. | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40 mm | 0.5 to 1.1 | | | |
| O | Asymmetry | R = 40 mm | 0.2 max. | | | |
| O | Tangential push-pull signal | R = 40 mm | 0.9 max. | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 40 mm | > 31 dB | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 40 mm | ≤ 280 | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Class-A Lab will check these values when required.

Test result of 16x-speed Linking characteristic for 12cm SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test shall be done in the user area where the Drive can keep performing 16x-speed recording.

Test results of Information data in Lead-in and RMA for 12cm/16x-speed SL

(Test Tools: GRBTD-041 and DVD-R measuring system (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1 Table 4.3.2.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.2.1 RMD Field1 (check only #1 area) (refer to Optional Specifications)

| Item *1 | | Applicant | Lab | | Judgment |
|--|-----------------|-----------|-----------------------------|-----------------------------|----------|
| Time stamp for 16x-speed recording (Hex) | BP 1600-1607 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 1 st field of 16x-speed Write Strategy code (Hex) | BP 1608-1611 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2 nd field of 16x-speed Write Strategy code (Hex) | BP 1612-1617 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 3 rd field of 16x-speed Write Strategy code (Hex) | BP 1618-1623 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power for 16x-speed recording (Hex) | BP 1624-1627 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 16x-speed recording (Hex) | BP 1628-1631 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information for 16x-speed recording (Hex) | BP 1632-1655 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 16x-speed DVD-R Rev. 6.0.

Test results of Recording characteristics for 12cm/2x-speed DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | | |
| | | R = 55 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | –0.05 to 0.15 | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 4x/2x-speed Drive, 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|-----------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.3 Wobble signal | | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.4 Defects | | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 4x/2x-speed Drive, 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 2x-speed Linking characteristic for 12cm DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/2x-speed DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.3.2.2.1.2 Format1 RMD Field1 or 4.3.2.2.2.2 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 2x-speed Write Strategy code for Layer 0(Hex) | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power (Hex) | BP 80-83 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time Stamp (Hex) | BP 84-91 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address (Hex) | BP 92-95 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 96-107 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2x-speed Write Strategy code for Layer 1 (Hex) | BP 108-123 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| DSV (Hex) | BP 124-125 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Test result of Reading characteristics for 12cm DL

(Test Tool: GRSTD-101-DL)

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Test results of Recording characteristics for 12cm/4x-speed DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF ²) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14H} max. – I _{14H} min.)/I _{14H} max. | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 4x/2x-speed Drive, 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 4x/2x-speed Drive, 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | –0.05 to 0.15 | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 4x-speed Linking characteristic for 12cm DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/4x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/4x-speed DL

(Test Tools: GRBTD-001-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 4x-speed Write Strategy code for Layer 0 (Hex) | BP 512-527 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 4x-speed Write Strategy code for Layer 1 (Hex) | BP 528-543 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 4x-speed recording | BP 544-547 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 4x-speed recording | BP 548-555 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 4x-speed recording | BP 556-559 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 560-571 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 4x-speed DVD-R for DL Rev. 1.0.

Test results of Recording characteristics for 12cm/6x-speed DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF ²) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14H} max. – I _{14H} min.)/I _{14H} max. | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|-----------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.3 Wobble signal | | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.4 Defects | | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 6x/2x-speed Drive, 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} − I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | −0.05 to 0.15 | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 40 mm | | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 40 mm | | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 6x-speed Linking characteristic for 12cm DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/6x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/6x-speed DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|--------------|-----------|-----------------------------|-----------------------------|----------|
| 6x-speed Write Strategy code for Layer 0 (Hex) | BP 1024-1039 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 6x-speed Write Strategy code for Layer 1 (Hex) | BP 1040-1055 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 6x-speed recording | BP 1056-1059 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 6x-speed recording | BP 1060-1067 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 6x-speed recording | BP 1068-1071 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 1072-1083 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 6x-speed DVD-R for DL Rev. 2.0.

Test results of Recording characteristics for 12cm/8x-speed DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 40 mm | < 8.0 % | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 40 mm | 0.20 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 40 mm | – 0.05 to 0.15 | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 40 mm | 0.10 min. | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40mm | 0.5 to 1.1 | | *3 | |
| | | R = 55mm | | | *3 | |
| O | Asymmetry | R = 40mm | 0.2 max. | | *3 | |
| | | R = 55mm | | | *3 | |
| O | Tangential push-pull signal | R = 40mm | 0.9 max. | | *3 | |
| | | R = 55mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 40mm | > 31 dB | | *3 | |
| | | R = 55mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 40mm | ≤ 280 | | *3 | |
| | | R = 55mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 8x/2x-speed Drive, 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 40 mm | < 8.0 % | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 40 mm | 0.20 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 40 mm | – 0.05 to 0.15 | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 40 mm | 0.10 min. | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|-----------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40 mm | 0.5 to 1.1 | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 40 mm | 0.2 max. | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 40 mm | 0.9 max. | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.3 Wobble signal | | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 40 mm | > 31 dB | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.4 Defects | | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 40 mm | ≤ 280 | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 8x-speed Linking characteristic for 12cm DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/8x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/8x-speed DL

(Test Tools: GRBTD-011-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|--------------|-----------|-----------------------------|-----------------------------|----------|
| 8x-speed Write Strategy code for Layer 0 (Hex) | BP 1088-1103 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 8x-speed Write Strategy code for Layer 1 (Hex) | BP 1104-1119 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 8x-speed recording | BP 1120-1123 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 8x-speed recording | BP 1124-1131 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 8x-speed recording | BP 1132-1135 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 1136-1147 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 8x-speed DVD-R for DL Rev. 3.0.

Test results of Recording characteristics for 12cm/10x-speed DL

(Test Tools: DHRR85T1SP and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 40 mm | < 8.0 % | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 40 mm | 0.20 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 40 mm | – 0.05 to 0.15 | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 40 mm | 0.10 min. | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40mm | 0.5 to 1.1 | | *3 | |
| | | R = 55mm | | | *3 | |
| O | Asymmetry | R = 40mm | 0.2 max. | | *3 | |
| | | R = 55mm | | | *3 | |
| O | Tangential push-pull signal | R = 40mm | 0.9 max. | | *3 | |
| | | R = 55mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 40mm | > 31 dB | | *3 | |
| | | R = 55mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 40mm | ≤ 280 | | *3 | |
| | | R = 55mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 10x/2x-speed Drive or 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 40 mm | < 8.0 % | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 40 mm | 0.60 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 40 mm | 0.20 min. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 40 mm | 0.15 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 40 mm | 0.10 max. | | *4 | |
| | | R = 55 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 40 mm | - 0.05 to 0.15 | | *4 | |
| | | R = 55 mm | | | *4 | |
| O | Track crossing signal | R = 40 mm | 0.10 min. | | *4 | |
| | | R = 55 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|-----------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 40 mm | 0.5 to 1.1 | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Asymmetry | R = 40 mm | 0.2 max. | | *3 | |
| | | R = 55 mm | | | *3 | |
| O | Tangential push-pull signal | R = 40 mm | 0.9 max. | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.3 Wobble signal | | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 40 mm | > 31 dB | | *3 | |
| | | R = 55 mm | | | *3 | |
| 2.1.7.4 Defects | | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 40 mm | ≤ 280 | | *3 | |
| | | R = 55 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 10x-speed Linking characteristic for 12cm DL

(Test Tools: DHRR85TT1SP and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/10x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/10x-speed DL

(Test Tools: DHRR85TT1SP and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|---|--------------|-----------|-----------------------------|-----------------------------|----------|
| 10x-speed Write Strategy code for Layer 0 (Hex) | BP 1536-1551 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 10x-speed Write Strategy code for Layer 1 (Hex) | BP 1552-1567 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 10x-speed recording | BP 1568-1571 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 10x-speed recording | BP 1572-1579 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 10x-speed recording | BP 1580-1583 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 1584-1595 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 10x-speed DVD-R for DL Rev. 4.0.

Test results of Recording characteristics for 12cm/12x-speed DL

(Test Tools: DHRR85TT1SP and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 55 mm | < 8.0 % | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 55 mm | 0.60 min. | | *4 | |
| O | I ₃ /I ₁₄ | R = 55 mm | 0.20 min. | | *4 | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 55 mm | 0.15 max. | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 55 mm | 0.10 max. | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 55 mm | - 0.05 to 0.15 | | *4 | |
| O | Track crossing signal | R = 55 mm | 0.10 min. | | *4 | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\Delta t/T$ at 0.1μm radial offset) | R = 55 mm | 0.5 to 1.1 | | *4 | |
| O | Asymmetry | R = 55 mm | 0.2 max. | | *4 | |
| O | Tangential push-pull signal | R = 55 mm | 0.9 max. | | *4 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 55 mm | > 31 dB | | *4 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 55 mm | ≤ 280 | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 12x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 55 mm | < 8.0 % | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 55 mm | 0.60 min. | | | |
| O | I ₃ /I ₁₄ | R = 55 mm | 0.20 min. | | | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 55 mm | 0.15 max. | | | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 55 mm | 0.10 max. | | | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 55 mm | - 0.05 to 0.15 | | | |
| O | Track crossing signal | R = 55 mm | 0.10 min. | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 55 mm | 0.5 to 1.1 | | | |
| O | Asymmetry | R = 55 mm | 0.2 max. | | | |
| O | Tangential push-pull signal | R = 55 mm | 0.9 max. | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 55 mm | > 31 dB | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 55 mm | ≤ 280 | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

Test result of 12x-speed Linking characteristic for 12cm DL

(Test Tools: DHRR85TT1SP and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 12cm/12x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 12cm/12x-speed DL

(Test Tools: DHRR85TT1SP and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|---|--------------|-----------|-----------------------------|-----------------------------|----------|
| 12x-speed Write Strategy code for Layer 0 (Hex) | BP 1600-1615 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 12x-speed Write Strategy code for Layer 1 (Hex) | BP 1616-1631 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 12x-speed recording | BP 1632-1635 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 12x-speed recording | BP 1636-1643 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 12x-speed recording | BP 1644-1647 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 1648-1659 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 12x-speed DVD-R for DL Rev. 5.0.

Test results of Recording characteristics for 8cm/2x-speed DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 38 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 38 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 38 mm | | | | |
| | (I _{14Hmax.} - I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 38 mm | | | | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 38 mm | | | | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | -0.05 to 0.15 | | | |
| | | R = 38 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 38 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 38 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 38 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 38 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 38 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 38 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 38 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 38 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 38 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 4x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|---|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 38 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 38 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 38 mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 38 mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 38 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 4x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test result of 2x-speed Linking characteristic for 8cm DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 8cm/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 8cm/2x-speed DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.3.2.2.1.2 Format1 RMD Field1 or 4.3.2.2.2.2 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 2x-speed Write Strategy code for Layer 0(Hex) | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording power (Hex) | BP 80-83 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time Stamp (Hex) | BP 84-91 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address (Hex) | BP 92-95 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 96-107 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 2x-speed Write Strategy code for Layer 1 (Hex) | BP 108-123 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| DSV (Hex) | BP 124-125 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Test result of Reading characteristics for 8cm DL

(Test Tool: GRSTD8-101-DL)

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Test results of Recording characteristics for 8cm/4x-speed DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 38 mm | | | *4 | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 38 mm | | | *4 | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 38 mm | | | *4 | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 38 mm | | | *4 | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | *4 | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 38 mm | | | *4 | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | *4 | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 38 mm | | | *4 | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 38 mm | | | *4 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

*4: In case of 4x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 0 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 38 mm | | | *3 | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 38 mm | | | *3 | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 38 mm | | | *3 | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 38 mm | | | *3 | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 38 mm | | | *3 | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: In case of 4x/2x-speed Drive, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|---------------------------|---|-----------|----------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| 2.1.7 Operational signals | | | | | | |
| | 2.1.7.1 High Frequency (HF) signal | | | | | |
| O | Jitter | R = 25 mm | < 8.0 % | | | |
| | | R = 38 mm | | | | |
| | Modulated amplitude | | | | | |
| O | I ₁₄ /I _{14H} | R = 25 mm | 0.60 min. | | | |
| | | R = 38 mm | | | | |
| O | I ₃ /I ₁₄ | R = 25 mm | 0.20 min. | | | |
| | | R = 38 mm | | | | |
| | (I _{14Hmax.} – I _{14Hmin.})/I _{14Hmax.} | | | | | |
| O | Within one revolution (PUH with PBS) | R = 25 mm | 0.15 max. | | | |
| | | R = 38 mm | | | | |
| O | Within each layer (PUH with PBS) | | 0.33 max. | | | |
| | Within one revolution (PUH without PBS)*3 | R = 25 mm | 0.10 max. | | | |
| | | R = 38 mm | | | | |
| | Within each layer (PUH without PBS) *3 | | 0.20 max. | | | |
| O | Signal asymmetry | R = 25 mm | – 0.05 to 0.15 | | | |
| | | R = 38 mm | | | | |
| O | Track crossing signal | R = 25 mm | 0.10 min. | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Class-A Lab will check these values when required.

| Class-B Lab. *1 | Items *2 | | Specification | Measurement | | Judgment (Lab use) |
|--------------------|--|-----------|---------------|-------------|-----|-----------------------|
| | | | | Applicant | Lab | |
| Layer 1 | | | | | | |
| | 2.1.7.2 Servo signal | | | | | |
| | Differential phase tracking error signal | | | | | |
| O | Amplitude ($\overline{\Delta t}/T$ at 0.1μm radial offset) | R = 25 mm | 0.5 to 1.1 | | | |
| | | R = 38 mm | | | | |
| O | Asymmetry | R = 25 mm | 0.2 max. | | | |
| | | R = 38 mm | | | | |
| O | Tangential push-pull signal | R = 25 mm | 0.9 max. | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.3 Wobble signal | | | | | |
| O | CNR of the Wobble signal (RBW=1kHz) | R = 25 mm | > 31 dB | | | |
| | | R = 38 mm | | | | |
| | 2.1.7.4 Defects | | | | | |
| O | PI errors in any consecutive 8 ECC blocks | R = 25 mm | ≤ 280 | | | |
| | | R = 38 mm | | | | |

*1: The measurement items at Class-B Lab are marked with O.

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Test result of 4x-speed Linking characteristic for 8cm DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

| Items | OK | NG | Comment |
|---------------------------------|--------------------------|--------------------------|---------|
| Test result of Applicant | <input type="checkbox"/> | <input type="checkbox"/> | |
| Test result of Verification Lab | <input type="checkbox"/> | <input type="checkbox"/> | |

Note: This test is only for 8cm/4x/2x-speed DL Drive. Other types of product need not execute this test.

Test results of Information data in Lead-in and RMA for 8cm/4x-speed DL

(Test Tools: GRBTD8-001-DL and DVD-R measuring system for DL (Playback))

3.4.1.2 R-Physical format information zone

| Item *1 | Applicant | Lab | | Judgment |
|---|-----------|-----------------------------|-----------------------------|----------|
| Physical format information (BP 0-3) (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

4.3.2.1.1 Table 4.3.2.1.1-1 Unique ID Field

| Item *1 | | Applicant | Lab | | Judgment |
|---|----------------------|-----------|-----------------------------|-----------------------------|----------|
| Drive manufacturer ID (Hex or ASCII) *2 | BP 0-15 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 16-31 | | | | |
| Serial Number (ASCII) *2 | BP 40-55 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Model Number (ASCII) *2 | BP 64-79 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Unique Disc ID *3 (Refer to Table 4.3.2.1-2) | BP 88-91 (Hex) | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 92-105 (ASCII) | | | | |

4.3.2.2.1.1 Format1 RMD Field0 or 4.3.2.2.2.1 Format 4 RMD Field0

| Item *1 | | Applicant | Lab | | Judgment |
|--------------------------------------|----------|-----------|-----------------------------|-----------------------------|----------|
| RMD Format (Hex) | BP 0-1 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Disc status (Hex) | BP 2 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Copy of Pre-pit Information (Hex) | BP 22-32 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| | BP 33-35 | | | | |

*1: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*2: The test of these items can be substituted by checking the same items in RMD Field1.

*3: The test of this item can be substituted by checking the same item in RMD Field0.

4.1.2 Format1 RMD Field1 or 4.1.3 Format4 RMD Field1 (check only #1 area)

| Item *1 | | Applicant | Lab | | Judgment |
|--|------------|-----------|-----------------------------|-----------------------------|----------|
| 4x-speed Write Strategy code for Layer 0 (Hex) | BP 512-527 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| 4x-speed Write Strategy code for Layer 1 (Hex) | BP 528-543 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Recording Power for 4x-speed recording | BP 544-547 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Time stamp for 4x-speed recording | BP 548-555 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Power calibration address for 4x-speed recording | BP 556-559 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |
| Running OPC information (Hex) | BP 560-571 | | <input type="checkbox"/> OK | <input type="checkbox"/> NG | |

*1: Refer to Optional Specifications 4x-speed DVD-R for DL Rev. 1.0.



Confirmation of DVD Format Verification

The following product is confirmed that it is on the strength of ☐ DVD Specifications for Recordable Disc for General Part 1 (Version 2.1), and/or ☐ DVD Specifications for Recordable Disc for Dual Layer Part 1 (Version 3.0) and the corresponding Optional Specifications for high speed recording, by DVD Format Verification Laboratory of the Company: _____

Product type : 12cm SL Drive

- ☐ 1x-speed DVD-R Drive for General
☐ 4x/1x-speed DVD-R Drive for General
☐ 6x/1x-speed DVD-R Drive for General
☐ 8x/1x-speed DVD-R Drive for General
☐ 12x/1x-speed DVD-R Drive for General
☐ 16x/1x-speed DVD-R Drive for General

8cm SL Drive

- ☐ 1x-speed DVD-R Drive for General

12cm DL Drive

- ☐ 2x-speed DVD-R Drive for DL
☐ 4x/2x-speed DVD-R Drive for DL
☐ 6x/2x-speed DVD-R Drive for DL
☐ 8x/2x-speed DVD-R Drive for DL
☐ 10x/2x-speed DVD-R Drive for DL
☐ 12x/2x-speed DVD-R Drive for DL

8cm DL Drive

- ☐ 2x-speed DVD-R Drive for DL
☐ 4x/2x-speed DVD-R Drive for DL

| | | |
|------------------------------------|---|------------|
| Product name | : | |
| Model number | : | |
| Application number | : | |
| Date of application (mm. dd, yyyy) | : | |
| Applicant: Name | : | |
| Company name | : | |
| Address | : | |
| Tel | : | |
| | | Fax: _____ |
| Date of issue (mm. dd, yyyy) | : | |
| Confirmed by: Signature | : | |
| Name | : | |
| Lab name | : | |
| Address | : | |
| Tel | : | |
| | | Fax: _____ |

Attachment : 1) Test results: **Form 2T**, and **necessary Forms** described in **Annex C**

2) Others: _____

Note: (1) The purpose of DVD Format Verification is to promote and enhance compatibility of DVD Product for DVD Industry based upon the minimum common specification requirements.

(2) The "Confirmation of DVD Format Verification", however, shall not be considered to guarantee the quality of product and the compatibility with a specific DVD disc or player/recorder.

(3) Information in this report shall be treated as confidential under the Non Disclosure Agreement executed between the applicant and DVD Format Verification Laboratory dated (mm. dd, yyyy) _____